

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Advanced Television Systems)
and Their Impact Upon the)
Existing Television Broadcast)
Service)

MM Docket No. 87-208

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COMMENTS OF THOMSON CONSUMER ELECTRONICS

I. Introduction

Thomson Consumer Electronics, Inc. ("Thomson") hereby submits the following comments in response to the Fourth Further Notice of Proposed Rulemaking and Third Notice of Inquiry ("Notice") which the Commission issued in this proceeding on August 9, 1995. In the Notice, the Commission asks whether recent technological developments in advanced television ("ATV"), especially the imminent prospect of an all-digital broadcast television system, require changes in the Commission's policy decisions made in earlier phases of this proceeding.

Thomson believes that as the Commission proceeds with its consideration of ATV issues in general and high-definition television ("HDTV") in particular, the Commission should be guided by several basic principles. First, the Commission should promote the most rapid possible adoption of ATV and its centerpiece application, HDTV, by broadcasters and consumers alike. Second, to the maximum extent possible it should let the marketplace function freely as broadcasters, broadcast equipment makers and manufacturers of receivers, converters and other consumer equipment implement the emerging ATV technical standard. And finally, in meeting its minimum regulatory responsibilities, the Commission should adopt ATV policies that ensure that HDTV will in fact reach the marketplace, where it can be evaluated fairly and its future determined by U.S. consumers.

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Thomson endorses the Commission's twin goals of preserving and promoting universal, free, over-the-air television, while ensuring the most efficient utilization of the spectrum, including recapturing as much spectrum as possible in contiguous blocks after the transition to ATV. Thomson believes both goals will be best served by the rapid adoption of ATV, especially HDTV, and we urge the Commission to adopt policies that will accelerate this conversion process.

II. Background

Headquartered in Indianapolis, Indiana, Thomson is a major manufacturer and marketer of color TV receivers, related video hardware, and a full range of consumer electronics products. Perhaps best known for its RCA, GE and ProScan brands, Thomson is the market leader in U.S. sales of color TV receivers, VCRs and most recently digital set-top receivers.

Thomson is also the largest employer in the U.S. consumer electronics industry, with nearly 10,000 Americans working in six major manufacturing sites with sales and distribution facilities across the nation. Thomson manufactures all of its large-screen color TVs in this country. These sets are designed in Thomson's engineering facility in Indianapolis and manufactured in its Bloomington, Indiana color TV assembly plant. Key components such as picture tubes, printed circuit boards, and cabinetry are produced at other Thomson facilities in the U.S.

Building on its manufacturing and marketing expertise in the color television business, Thomson has also established itself as the industry leader in digital television in the United States. For example, Thomson designed and developed the digital encoding and decoding hardware required to bring the DirecTV broadcast satellite service to the American public. This may be the most successful introduction ever of a consumer electronics product, with the first one million Digital Satellite System dishes and receivers sold in just eleven months. In addition, Thomson recently won a competitive bid and was awarded a contract by TeleTV to

provide three million digital set-top converters to support the introduction of digital television services by Bell Atlantic, NYNEX and Pacific Bell.

Most important, Thomson has been heavily involved in and made substantial contributions to the development of digital over-the-air broadcast television technology. Thomson and its Grand Alliance partners have invested in excess of \$300 million to develop this world-leading digital television technology.

After an arduous but productive eight-year process, the U.S. has developed a superior all-digital HDTV system, leap-frogging earlier efforts in Japan and Europe. Very soon the Commission will have the opportunity to ratify the work of its Advisory Committee, and begin the process of upgrading the nation's television infrastructure by adopting an ATV standard for broadcast television based on the Grand Alliance system. Thomson supports the comments filed by the Grand Alliance and offers these supplemental comments to help guide the Commission in adopting policies that will promote the rapid introduction of digital television.

III. The Commission should permit flexible use of the channel while preserving and promoting free over-the-air television.

The Grand Alliance system offers broadcasters unprecedented flexibility to provide consumers with additional choices--HDTV, multiple digital standard definition television (SDTV) programs, ancillary digital services, or various combinations of these services. Thomson believes that the principal use of the conversion channel should be to upgrade the nation's terrestrial television system to digital high-definition capability. However, once this principal use is assured, broadcasters should be encouraged to develop and test new services that go beyond traditional bounds and respond to the information age needs of consumers. Not only will such new applications enhance broadcasters' ability to compete, they will also promote a more rapid transition to digital broadcasting by increasing consumer demand while

providing additional advertising and other revenues. Permitting such flexible use of the channel will provide both broadcasters and consumers with added incentives to adopt HDTV.

A. The Commission should require broadcasters to provide a minimum amount of HDTV on their ATV spectrum.

To remain competitive in the future, it will be essential for broadcasters to increase significantly the picture quality of the programming they deliver to American households. Recent market research conducted for Thomson by a major U.S. university reveals that the two most important variables influencing the rate of adoption of HDTV by consumers are picture quality and the amount of available HDTV programming.

HDTV delivers quantum improvements in video and audio quality that will motivate consumers to invest in digital television. By requiring HDTV broadcasts, the Commission can ensure early and frequent availability of HDTV programs that will build growing marketplace momentum and encourage consumers to purchase HDTV sets. This, in turn, will create the economies of scale associated with high volume manufacturing that will drive down receiver costs and prices. Falling prices will further spur consumer demand, maintaining and accelerating the momentum. The more HDTV programming that is offered, the faster the transition to digital will proceed. Not only will this hasten the day when all Americans will have dramatically improved television service, it will allow the Commission to recapture valuable NTSC spectrum much sooner.

In light of these objectives, Thomson urges the Commission to require broadcasters to offer minimum amounts of HDTV programming each week, focusing on prime time and weekend afternoon time periods. One important benefit of this approach would be that it will position retailers to demonstrate high-definition television performance and to educate consumers regarding the many benefits of the high-definition system, thereby facilitating broad consumer adoption.

B. Ancillary and supplementary services should be permitted.

In addition to picture quality, program content will play an important role in the adoption of ATV. To this end, broadcasters should be given wide latitude in exploiting the flexibility of the Grand Alliance system to provide programming in the SDTV format as well as ancillary and supplementary services. The new functionality of these services should generate additional consumer and advertiser interest, as well as new revenues for broadcasters, all helping to finance and accelerate the conversion to digital television.

IV. Initial eligibility for ATV licenses should be limited to existing broadcasters.

Because the temporary assignment of an additional 6 MHz channel to each existing broadcaster will bring about a smooth and rapid transition to digital HDTV, Thomson wholeheartedly endorses the Commission's current plan to limit the initial eligibility for ATV licenses to existing broadcasters. However, in the unlikely event that existing broadcasters are uninterested or unable to make the transition to ATV, including HDTV, within a reasonable transition period determined by the Commission, the ATV spectrum should be made available to new entrants who make a commitment to broadcast HDTV and other digital television services.

V. The Commission should modify its simulcast requirement in order to promote the rapid transition to HDTV and ATV and the recovery of NTSC spectrum.

Modest rules governing the relationship between a broadcaster's NTSC and ATV programs can facilitate both the transition to ATV and the rapid recovery of spectrum at the end of the transition period. Early in the transition, broadcasters should be given wide freedom to focus on HDTV and take full advantage of the capabilities of this new technology to differentiate it from NTSC. On the other hand, requiring some ATV content which is identical to that available on the NTSC channel can help facilitate the transition by allowing

direct comparisons of NTSC and HDTV/ATV picture quality, helping consumers to evaluate the performance improvements.

If conditions arise where the Commission's simulcast requirements seem inappropriate, broadcasters should be permitted to seek waivers on a case-by-case basis.

VI. The Commission should establish a nominal target date and evaluate it periodically to determine when broadcasters should cease NTSC transmissions.

In determining the length of the transition period, the Commission's basic approach of setting a target date, conducting periodic reviews to monitor the progress of ATV implementation, and making adjustments, if necessary, remains fundamentally sound. Although the Commission can do much to promote the rapid implementation of ATV and to focus the industry on a practical timetable for the conversion, no one can predict with precision how fast consumers will adopt the new technology.

In its intermediate reviews and in its final decision to fix the end of the transition period, the Commission should look at household penetration in broadcast reception areas to determine the population that is no longer dependent solely on over-the-air NTSC broadcasting. The Commission should evaluate this benchmark periodically and adjust the "date certain" end of NTSC transmissions--forward or backward--to the point in time where it is projected to be 80 percent. By periodically reviewing the progress of implementation against this benchmark, the Commission should be able to fix a final date certain upon which NTSC transmissions will cease, giving two or three years of advance notice. This should give the viewers who remain dependent on terrestrial NTSC broadcasts ample time to obtain digital receivers or converters, or to subscribe to nonterrestrial television services.

The Commission can be confident that manufacturers will provide a variety of products and the appropriate financing arrangements to help consumers obtain the digital receivers and converters needed to complete the transition. The Commission should leave

these arrangements to manufacturers and their retail distributors, and should not involve broadcasters in any sort of joint or cooperative effort to market equipment to consumers.

VII. At the end of the transition period the Commission should repack the ATV spectrum in order to free up large, contiguous, nationwide blocks of spectrum.

In making ATV channel assignments, it is vital that the FCC look ahead to the recovery of one of each broadcaster's 6 MHz channels at the end of the transition period. With careful planning, the Commission will be able to recover more spectrum and to organize the recovered spectrum into large, contiguous, nationwide blocks that will be far more valuable than a patchwork quilt of locally available spectrum.¹ Moreover, planning now for the end of the transition will encourage industry investment and development of new services that can take advantage of the freed-up spectrum, and will reinforce the temporary nature of a second channel being assigned to each broadcaster.

VIII. The Commission should shorten the application/construction period.

Six-Month Election Period

The Commission's proposal to require broadcasters to elect within six months whether to convert to ATV has merit, if a broadcaster's decision represents a real commitment. An early election requirement will stimulate broadcasters, after many years of discussion and evaluation, either to make a firm commitment to convert, as we expect most will do, or to step aside and permit other potential entrants the opportunity to take their places. Such public, formal commitments to digital television will also help stimulate the early availability of consumer receivers and the hardware necessary for broadcasters to make the conversion to ATV.

¹Proposals have recently been made in Congress that aim to reduce the federal budget deficit by requiring the Commission to auction the television spectrum currently planned for the conversion to ATV. Such proposals would not only render broadcast ATV stillborn and undermine the ability of free over-the-air television to compete technically in the decades to come, but would lock in an inefficient usage of scarce spectrum and grossly reduce the funds that ultimately could flow to the U.S. Treasury by auctioning recaptured television spectrum at the conclusion of the transition to ATV.

Large-Market Broadcasters

As a further means of accelerating the transition to ATV, the Commission should adopt a shorter application/construction schedule for broadcasters in the 25 largest markets. Broadcasters have been on notice during the entire eight-year Advisory Committee process of the impending need to convert to advanced television. Many have prepared implementation plans, and only await the finalization of an ATV standard to set those plans into motion. With their greater scope of operations, broadcasters in the largest markets generally will be better able to afford and support a more rapid transition. The resulting early lead by large-market broadcasters will jump-start the conversion process, bringing higher sales volumes and declining prices for both broadcast equipment and ultimately for consumers.

Small-Market Broadcasters

Many small-market stations may need the full six-year application/construction period, but the Commission need not grant any general extension to small-market broadcasters or any other particular class of stations. Where hardships or unique problems arise, the Commission should consider waivers of the application/construction deadlines for individual broadcasters based on the specific circumstances.

IX. The Commission should not mandate requirements for the consumer electronics equipment required to support the introduction of digital television.

To succeed in the marketplace, television set manufacturers must produce sets capable of receiving and displaying any combination of NTSC and ATV services desired by consumers. For many years to come, digital television sets will be designed to receive and display analog NTSC broadcasts without any FCC requirement to do so. Consumers will want to view both digital and analog broadcasts without requiring two side-by-side sets, and they will want to view analog VCR tapes on their new digital televisions.

Thomson intends to build and market digital receivers that *receive* all ATV formats, including HDTV. We expect that other receiver manufacturers will do the same, without any

FCC requirement to do so. However, the Commission should not regulate the manner in which the received digital signals are displayed, but should rely on marketplace forces and give manufacturers the latitude to differentiate their products and meet varying consumer needs. Even though a mandate is unnecessary, Thomson would support a requirement that all digital receivers *receive* HDTV, provided that it is coupled with the requirement endorsed above that broadcasters transmit minimum amounts of HDTV programming.

Thomson believes that any requirement to limit or ban the sale of NTSC receivers would be particularly ill-advised. During and even after the transition to digital, there will be a demand for NTSC sets driven by preexisting cable services, wireless cable services, direct broadcast satellite services, and VCRs.

Thomson strongly urges the Commission not to require labels on NTSC sets warning consumers that at some point their NTSC set will no longer receive over-the-air broadcasts. The success of consumer electronics manufacturers and retailers depends on educating their customers. As in the past, the industry can be relied upon to inform consumers and to minimize any confusion caused by the conversion to digital television. Negative labeling would only add confusion to the process.

X. Conclusion

For all these reasons, the Commission should make the minor modifications to its ATV policies proposed herein, reinforcing HDTV as the centerpiece ATV application while giving broadcasters great flexibility in using the ATV channel for other services as well. The Commission should also proceed as expeditiously as possible to adopt an ATV broadcast transmission standard based on the Grand Alliance system, to assign ATV transition channels to broadcasters, and to do all else possible to promote the rapid introduction of HDTV and other ATV applications. Unequivocal leadership from the Commission now will galvanize

private industry to make the investments necessary to turn the vision of digital television into a reality for the American public.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "B M Allan", written in a cursive style.

**Bruce M. Allan
Senior Vice President, Business Development
Thomson Consumer Electronics Corporation**

November 15, 1995